Paper No. 14

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte KATSUYA KOGANEI
and
MAKOTE KANBARA

Appeal No. 2000-1447
Application No. 08/987,404

ON BRIEF

Before KIMLIN, LIEBERMAN and JEFFREY T. SMITH, Administrative Patent Judges.

KIMLIN, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1 and 3-8, all the claims remaining in the present application.

Claim 1 is illustrative:

1. A lubricating oil composition for internal combustion engines, said composition comprising an ester-blended base stock, an organomolybdenum compound and a zinc dithiophosphate, wherein said ester-blended base stock comprises:

from 10 wt.% to 30 wt.% based on the whole weight of the base stock of an ester having a kinematic viscosity of from 8 cSt to 35 cSt at 100°C and a saponification value of 200 mg-KOH/g or lower; and

from 90 wt.% to 70 wt.% based on the whole weight of the base stock of a poly(α-olefin) and/or a highly-refined mineral oil having a sulfur content of 5 ppm or lower and an aromatic hydrocarbon content of 1 wt.% or less.

The examiner relies upon the following references as evidence of obviousness:

Seiki	4,968,452	Nov. 6, 1990
Culpon, Jr. (Culpon)	5,151,205	Sep. 29, 1992
Arai et al. (Arai)	5,364,545	Nov. 15, 1994

Appellants' claimed invention is directed to a lubricating oil for internal combustion engines comprising a base stock containing a poly(α-olefin) and/or highly-refined mineral oil and an ester having the recited kinematic viscosity and saponification values. According to appellants, molybdenum-containing oils, like those of the present invention, show extremely low friction reducing effects when combined with ester-blended base stocks (page 2 of specification, second paragraph). According to appellants, they have found that use of an ester having the claimed kinematic viscosity and saponification values "makes it possible to fully exhibit the performance of a molybdenum-based friction modifier" in a lubricating oil for internal combustion engines (page 5 of specification, second paragraph). Appellants

point to comparative data in the present specification which demonstrates that ester oils having viscosity and saponification values outside the claimed ranges "uniformly result in lubricating oils which are markedly inferior in terms of friction reduction over a wide temperature range" (page 6 of Brief, last paragraph).

Appealed claims 1 and 3-8 stand rejected under 35 U.S.C. § 103 as being unpatentable over Arai in view of Seiki and Culpon.[1]

Upon careful consideration of the opposing arguments presented on appeal, we find that the examiner has not established a prima facie case of obviousness for the claimed subject matter. Accordingly, we will not sustain the examiner's rejection.

Arai, the primary reference, discloses a lubricating oil for internal combustion engines comprising a base stock that may comprise synthetic oils containing mixtures of polyolefin and ester. However, Arai is silent on the saponification value of

[1] The examiner's statement of the rejection in the Answer, which includes only claims 1, 3-6 and 8, is considered inadvertent error. We note that the Answer did not expressly withdraw the final rejection of claim 7 under 35 U.S.C. § 103, although the examiner's final rejection under 35 U.S.C. § 112, first paragraph, is explicitly withdrawn (see page 3 of Answer).

the ester and, as urged by appellants, the reference attaches no significance to the saponification value and teaches no correlation between the saponification value and friction reduction. Although the examiner cites Seiki and Culpon for the obviousness of using "a blended base oil stock having an ester within the claimed 10 to 30 weight percent" (page 6 of Answer, second paragraph), the examiner has not offered a rationale why it would have been obvious for one of ordinary skill in the art to select an ester having the claimed saponification value for a lubricating oil comprising molybdenum and dithiophosphate compounds. While the examiner points to Culpon's disclosure of a C_8 alcohol dimer acid ester and concludes that it would inherently have a viscosity and saponification value within the claimed range, the referenced inclusion of such esters in a substantial list of ester oils establishes only that it was known in the art to use a wide variety of esters in oil compositions. Furthermore, Culpon is directed to lubricants for chain and gear drive mechanisms but makes no mention of internal combustion engines. Moreover, appellants' comparative data in the specification demonstrates that superior lubricants are obtained by using esters having the claimed viscosity and saponification value.

In conclusion, based on the foregoing, the examiner's decision rejecting the appealed claims is reversed.

REVERSED

EDWARD C. KIMLIN Administrative Patent Judge	)	
PAUL LIEBERMAN Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
JEFFREY T. SMITH Administrative Patent Judge	)	

ECK:clm

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